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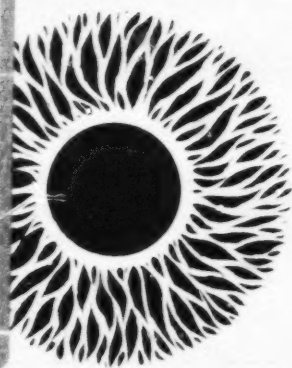
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ABSTRACT

In this paper, prepared as part of the Project in Television and Early Childhood Education at the University of Southern California, first language acquisition and the role that parent-child intervention upon television exposure plays in acquisition are discussed. The conceptualizations of behavior modification and Piaget's developmental theory are outlined and compared; their frameworks are utilized to analyze and suggest relationships between parent-child interaction and the child's acquisition of language from television. The position is taken that a first language is acquired, not learned, but that the process of acquisition can be affected by the kind and timing of the primary linguistic data. The paper concludes with a proposal for a Piagetian-derived behavior modification intervention schedule.
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PROJECT IN TELEVISION AND EARLY CHILDHOOD EDUCATION

at the University of Southern California

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PROPOSAL

A Method for Parent-Child Interaction
Which Facilitates
Language Acquisition From Television

by

Robert H. Epstein

March 1976

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A Joint Project of The Annenberg School of Communications and The School for Early Childhood Education

University of Southern California, Los Angeles, California, 90007

PROPOSAL

A Method for Parent-Child Interaction Which Facilitates Language Acquisition From Television

Robert H. Epstein.

The process of language acquisition is poorly understood although the field of linguistics offers us many hypotheses from which we can start. In this paper we will be concerned only with first language acquisition and the role that parent-child intervention upon television exposure plays in acquisition. The conceptualizations of behavior modification and Piaget's developmental theory will be outlined and compared; their frameworks will be utilized to analyze and suggest relationships between parent-child interaction and the child's acquisition of language from television.

Since we are concerned with a child's first language, the process of learning should be distinguished from the process of acquisition. In linguistic literature, learning a first language is the process when the child has a problem with her language acquisition device (LAD) and is taught specific language performances; also, from a psychologist's or teacher's point of view, something is learned when it has been taught. Learning theory may explain to some extent the external conditions that lead to a child's eventual performance, however, most language theorists presently concur that normal first language development is primarily an innate process of acquisition. While the debate is not yet settled, within this paper, the final position taken is that a first language is acquired, not learned, but that the process of acquisition can be affected by the kind and timing of the primary linguistic data.

Behavior Modification

In brief, behavior modification is a process whereby the behavior of an individual is changed and directed toward a specific behavioral goal through the use of a schedule of social and physical rewards or punishments in addition to or in response to an individual's observable performance.

Behavior modification is based upon learning theories of operant and respondent conditioning. Utilizing clearly observable behaviors that have been operationally defined, an individual using behavior modification experimentally manipulates environmental stimuli to change an individual's behavior. No attention is directed to internal organismic processes. Behavior is believed to be contingent only upon external cues. Changes of behavior include: modifying discriminations to contingencies, shaping behavior, extinguishing behavioral responses, conditioning responses to particular stimuli, fading a stimuli to another, etc.

Regarding language, theorists such as Skinner (1957) and Staats (1968) state that language is learned as a species-specific behavior through operant conditioning. The parent is considered the conditioning agent in her control of herself as a rewarding factor and in controlling environmental rewards.

While the theories upon which behavior modification depends (the stimulus-response (S-R) variety) have been criticized by most linguists (McNeill, 1970; Lenneberg 1967) for a failure to account for the differences between and the roles played by linguistic competence and linguistic performance, it appears that

there is some acceptance of behavior modification's role in aspects of performance alone or where competence is handicapped (Schiefelbusch and Lloyd, 1974, contains several arguments); this is increasingly realized with language-handicapped children when there are interferences of the language input or where the LAD is malfunctioning.

Piaget's Developmental Theory

To Piaget, the world of the child is constructed, not instructed. Social as well as physical environments act upon the developmental process (Sigel, 1969). Eventually, through an invariant sequence of developmental stages, the child dismisses environmental contingencies and relies upon internal stimuli (Deese, 1970). Piaget provides us with accounts of development that have been determined from changes in environmental settings, although, his explanations have been biological. Thus, he hypothesizes about the internal organismic processes through a series of observable environmental changes.

Consistency (equilibration) of internal structural representations (schema) is determined by Piaget (1964) to be an intrinsic property of mental life on which all the child's intellectual development depends. Equilibration occurs when a perturbing event causes an internal disequilibrium; it is resolved through assimilation (placing the event in existing schema), accommodation (changing a schema to fit the event), or no change may occur (Kessen, 1971); equilibration also changes developmentally (Palmer, 1968). Perturbations depend upon existing cognitive schema and the optimal zone between what the child knows and what he can act upon developmentally. It appears to be that when a child is at stage n , then what is at $n+1$ is optimal.

Language facilitates the cognitive growth of the child (Sigel, 1969), and, therefore, language must be discussed in reference to the cognitive (or sensorimotor) level (McElroy, 1972), according to interpretations of Piaget's theory.

Comparison

It is Piaget's (1964) belief that his model of language development goes beyond a stimulus-response learning model by the addition of internalized transformations and equilibration; with these, pseudo-structures result. Pseudo-structures in the repertoire are not incorporated into schema, and, therefore, can be shown easily irreversible and ungeneralizable. Piaget's model adds activity - innate equilibration drives and overt physical manipulation - to an S-R framework, but also, requires biologically less of the innate LAD (Stevenson, 1970). Thus, Piaget's theory is not a stimulus-response learning model as Berlyne (1970) suggests; however, it is not exactly a model congruent with Chomsky (1957) and McNeill (1970) (Sinclair-de-Zwart, 1969; McElroy, 1972). As Elkind (1971) notes, assimilation prevents the copying of reality exactly while accommodation insures correspondence with reality.

Behavior modification correctly suggests that the parent, in interaction with the child, can influence the child's linguistic performance, particularly, when the language input is somehow modified. It is questionable whether learning theories based on reinforcement are necessary or sufficient for language acquisition; they appear, however, to have an influence to some degree.

Apparently behavior modification and Piagetian developmental theory are not so different, if we utilize the first as a method for external control, and the second as a theory of innate, internal processes that bear upon what we do externally.

While Piaget, himself, does not suggest that his theory of development is useful for applications of intervention (Stendler-Lavatelli, 1965), it appears that training operationalizations of his approach are possible and congruent with behavior modification methods.

Proposing a Piagetian-derived Behavior Modification Intervention Schedule

Behavior modification calls for a series of stages (which Piaget provides) so that a child's behavior can be led to a desired behavioral goal. These stages, according to Piaget (Stendler-Lavatelli, 1965) gain acceleration through maturation, experience, social transmission and equilibrium activities. Although we cannot directly influence a child's maturation and equilibrium activities, Athey and Rubadeau (1970) suggest, that if we take account of a child's stages of development, individual differences, and mutual exploration of the environment, experience and social transmission can be affected to achieve acceleration.

The following briefly illustrates a treatment of parent-child interaction and television suggested by the above discussion:

a) The child's LAD, if we assume Piaget's equilibration process, requires linguistic data, matching the child's cognitive level, motivating cognitive incongruity, and influencing the child to take an active part. This suggests that any manipulation of the environment or social transmission be aimed at providing the child a full range of activities and 'lessons' (Sigel, 1969), and not teaching pre-fabricated routines (Brown and Hanlon, 1970) or unassimilated pseudo-fragments (Inhelder and Sinclair, 1969, criticism of Bruner). This is a complex matter requiring specific contingencies be realized and the level of the child ascertained before parent intervention can be effective (Adler, 1965; Reese and Lipsitt, 1970).

b) Specifically, the parent can modify the quality and extent of interaction through directly affecting the experience, and indirectly, the social transmission. By modifying the language input to slightly above the child's level and to the situation, the parent can create a situation fostering equilibration activity according to a curriculum of stages (Sigel, 1969). Thus, a goal and a series of steps would be arranged, according to Piaget's developmental theory, that could subsequently be manipulated by the parent's control of contingencies.

c) If 'catching-up' rather than acceleration is warranted, specific language behaviors not yet acquired (but where cognitive development exists) can selectively be reinforced or modeled (Morehead and Morehead with Johnston, 1974). The basic intent of this would be to bring the child to a point where further development would occur without subsequent training (Turton, 1974). The significance of this procedure is the possible application towards training normal children to actively participate upon television content, by assisting children to develop their own schema for future television experience.

It should be noted, that the effect of a parent's modification of the linguistic input, as well as, modification of a passive experience into an active experience of social transmission, are not counter to current linguistic acquisition theories and their explanations of acceleration. Thus, a combination of behavior modification and Piaget's developmental theory suggests a promising training procedure of parent-child interaction increasing the range and quantity of children's linguistic gains from television.

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